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NATIONAL COMMUNICATIONS FROM PARTIES INCLUDED IN ANNEX I TO THE CONVENTION

GUIDELINES FOR THE PREPARATION OF NATIONAL COMMUNICATIONS

Guidelines for the preparation of national communications by Parties included in Annex I to the Convention: Part II

Note by the secretariat

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I. INTRODUCTION

A. Mandate

1. The Subsidiary Body for Scientific and Technology Advice (SBSTA), at its seventh session, agreed to consider at its ninth session what, if any, additions and/or amendments to the guidelines for the preparation of national communications by Parties included in Annex I to the Convention would be required (UNFCCC reporting guidelines) (FCCC/SBSTA/1997/14, paragraph 16 (d)).

2. At its eighth session, the SBSTA requested the secretariat to send a questionnaire to Parties on clarifications, additions and/or amendments to the revised UNFCCC reporting guidelines. The submissions would then be compiled into a miscellaneous document. It requested the secretariat to organize a workshop with the aim of proposing any necessary clarifications, additions and/or amendments to the UNFCCC reporting guidelines, at the fifth session of the Conference of the Parties (FCCC/SBSTA/1998/6, paragraph 30).

3. The SBSTA, at its ninth session, requested the secretariat to prepare a paper on clarifications, additions and/or amendments to the UNFCCC reporting guidelines, taking into account the information from the workshop, for consideration at its tenth session[1] (FCCC/SBSTA/1998/9, paragraph 51 (b), (d) and (e)).

4. At its tenth session, the SBSTA concluded that discussions on revisions to part II of the UNFCCC reporting guidelines, should continue at its eleventh session. It further requested the secretariat to prepare a document reflecting the status of discussions on the draft text of part II of the guidelines at the close of the tenth session (FCCC/SBSTA/1999/6, paragraph 27 (h)).

B. Scope of the note

5. In response to the above mandate, this note contains revised draft guidelines for the preparation of national communications by Parties included in Annex I to the Convention: Part II, Reporting guidelines on other issues.[2] A text reflecting the status of discussions at the close of the tenth session of the SBSTA is contained in document FCCC/SBSTA/1999/13/Add.1.[3] The latter document contains revisions proposed by Parties and

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[1] The secretariat made available the following documents for the tenth session of the SBSTA: FCCC/SB/1999/1, FCCC/SB/1999/1/Add.1, FCCC/SB/1999/1/Add.2, FCCC/SB/1999/1/Add.3, FCCC/SB/1999/MISC.2, FCCC/SBSTA/1999/INF.1, FCCC/SBSTA/1999/INF.1/Add.1, FCCC/SBSTA/1999/INF.2, FCCC/SBSTA/1999/INF.3. Of these, documents FCCC/SB/1999/1/Add.2 and FCCC/SB/1999/MISC.2 relate to part II of the UNFCCC reporting guidelines.

[2] Referred to as 'the Chairman's revised draft text'.

[3] Referred to as 'Working Paper No. 4'.

the co-Chairs to the joint contact group on Annex I national communications at the tenth session of the SBSTA and editorial corrections. In addition, Parties may wish to refer to document FCCC/SBSTA/1999/13/Add.2, which contains draft guidance for reporting on global climate observing systems from the Global Climate Observing System (GCOS) secretariat.

6. This note explains the principal differences between the Chairman's revised draft text and Working Paper No. 4. It also identifies a few additional options for changes Parties may wish to consider.

C. Possible action by the SBSTA

7. The SBSTA may wish to consider the information contained in this note and in the addenda, determine whether the Chairman's revised draft text or Working Paper No. 4 should serve as a basis for further discussions at the eleventh session, endorse or modify their main elements and provide guidance related to a draft decision for consideration by the COP at its fifth session.

II. APPROACH USED TO PREPARE THE CHAIRMAN'S REVISED DRAFT TEXT

A. Background

8. The Chairman's revised draft text takes into consideration documents FCCC/SB/1999/1/Add.2, FCCC/SBSTA/1999/13/Add.1 and decision 9/CP.2. An attempt has also been made to ensure consistency with part I of the guidelines for the preparation of national communications by Parties included in Annex I to the Convention (FCCC/SBSTA/1999/6/Add.1).

9. The Chairman's revised draft text is based on consultations between the Chairman of the SBSTA, the co-Chairs of the joint contact group and the secretariat. It attempts to reflect concerns expressed by Parties through the co-Chairs, about a lack of clarity in Working Paper No. 4.

B. General approach

10. Taking into account the views expressed during consultations, the Chairman's revised draft text aims to present the reporting guidance in a more logical and structured way, without changing the nature of the information being requested. To a large extent, this has been achieved by simply changing the order of paragraphs and adding headings.

11. The secretariat, to the extent possible, has maintained text already agreed by the joint contact group. In the case of those sections which had little or no consideration by the joint contact group, the Chairman's revised draft text has been able to incorporate most country proposals, as contained in Working Paper No. 4, as they are generally complementary.

C. Explanatory text

12. In addition to a description in this note of the main differences between Working Paper No. 4 and the Chairman's revised draft text, other changes are explained in footnotes to the Chairman's revised draft text. Minor editorial changes are not highlighted.

13. Below, paragraph numbers relate to the Chairman's revised draft text.

III. MAIN DIFFERENCES BETWEEN WORKING PAPER NO. 4 AND THE CHAIRMAN'S REVISED DRAFT TEXT

A. Generic issues

14. The term 'national communication' has been used throughout the Chairman's revised draft text in preference to 'communication' or 'report' where these terms occurred. Furthermore, the title 'National Report' has been replaced with the original title contained in document FCCC/SB/1999/1/Add.2. Parties may wish to give further thought to this matter.

15. In order to provide a framework for the guidelines, headings have been included in each section. For consistency, the annex to the guidelines, providing an overall structure for the national communications, uses these same headings, where relevant.

16. In revising the text, the secretariat examined the use of every term such as 'shall', 'could', 'to the extent possible', 'encouraged' etc. For clarity, in general, only the terms 'shall', 'should' and 'may' are used in the Chairman's revised draft text. The term 'shall' is used where the request for information can be related to Articles 4 and/or 12 of the United National Framework Convention on Climate Change (UNFCCC). In general, it is used in relation to broad requests for information at the start of each section or subsection. The term 'should' is generally used where more detailed information is required and the term 'may' is used where maximum flexibility is allowed in reporting. These terms have been underlined. For information, where a term has been changed, relative to Working Paper No. 4, the previously used term is shown in parentheses. Parties may wish to give careful consideration to the appropriate term in each case.

B. National circumstances

17. Several changes were made in the Chairman's revised draft text reflecting concerns that too much information was being requested in an unstructured way. In the joint contact group, Australia proposed reducing the amount and simplifying the type of information requested. Their text proposal is contained in Working Paper No. 4. This was used as the basis of the Chairman's revised draft text. Headings have been added to provide a structure in which Parties need only provide information which relates their national circumstances to climate change issues, thereby further reducing the volume of information required. The elements of the Australian text have been retained under this structure, although requests to provide information

about policies have been deleted, as Parties should provide such information in the policies and measures section. Requests to provide 'indicators' for particular sectors have been replaced by a general request for Parties to provide such data if it assists in explaining their national circumstances and/or the relevance of their national circumstances to greenhouse gas (GHG) emissions.

C. Greenhouse gas inventory information

18. The text remains unchanged in requesting the provision of summary tables, based on the common reporting format and in accordance with part I of the guidelines and allows this information to be presented as an annex to the national communication. In this circumstance, the reader may need to refer to an annex to obtain basic information about trends in GHG emissions. For this reason, an additional paragraph 18 has been added to the Chairman's revised draft text to request the provision of diagrams for each GHG along with a summary description of emission trends.

D. Policies and measures

19. There have been very few changes to the text related to policies and measures, but the paragraph order has changed to create a more logical structure. The text described as the 'co-Chair's proposal' in Working Paper No. 4 became paragraph 23 in the Chairman's revised draft text, to describe how the reporting of policies and measures shall be organized. This proposal favours a summary table for each sector, in preference to a single table with a column entitled 'sector'.

20. The joint contact group discussed whether the reporting of policies and measures and projections should be along the lines of the Intergovernmental Panel on Climate Change (IPCC) inventory categories or economic sectors. In the Chairman's revised draft text, for table 1, Parties are requested to report, to the extent appropriate, using the six sectors mentioned in the Convention, and in the projections section Parties are requested to use the same sectors. Parties may wish to further consider this issue.

E. Projections and the total effects of policies and measures

21. Although many of the paragraphs remain unchanged or with minor modifications, parts of the projections section have been substantially rewritten to add clarity, without any significant changes in reporting requirements compared to Working Paper No. 4. A distinction is made between the type of projections a Party shall or may conduct and the way in which the projections shall be presented against actual inventory data for preceding years. The guidelines then set out what information about the total effect of policies and measures should be reported. They also explain what type of information is required to explain how the projections were made and what key data are required in order to explain emission trends over time.

22. It should be noted that the information requested about key data relative to projections allows a Party to provide data which assist the reader in understanding actual and projected GHG emissions. This should be borne in mind when consideration is given to the national circumstances section where Parties are requested to provide information that explains how their national circumstances affect such activities or emissions rather than duplicating what is required in the projections section.

F. Financial resources and the transfer of technology

23. The secretariat has used the text from the Chairman's original draft text (FCCC/SB/1999/1/Add.2) in the Chairman's revised draft text. The Parties may also refer to Working Paper No. 4 to take note of deletions and additions suggested by Parties in the joint contact group.

G. Research and systematic observation

24. Draft guidance from the Global Climate Observing System secretariat for reporting on global climate observing systems is contained in an addendum to part II of the guidelines (FCCC/SBSTA/1999/13/Add.2).

IV. FURTHER OPTIONS FOR CHANGES TO THE CHAIRMAN'S REVISED DRAFT TEXT

A. Substantive options for change

25. The Parties may wish to consider the following changes to the Chairman's revised draft text:

(a) Whether definitions are required in the guidelines and, if so, which ones. (The Chairman's revised draft text retains the European Union (EU) text previously contained in Working Paper No. 4.);

(b) If the section on 'Coverage' is necessary. Parties may wish to consider if paragraph 3 is covered by paragraph 1 (a) and whether paragraph 4 is covered by part I of the guidelines, given that Parties are asked to provide summary tables in accordance with part I of the guidelines;

(c) Whether the text in the 'National circumstances' section could be further simplified so that the sub-items (a) to (k) under paragraph 13 do not specify, in detail, the information to be provided but that only the underlined headings remain. In this way, Parties would need to judge what data are relevant in the context of paragraph 13;

(d) Whether information on 'Research and systematic observation' should be provided in a separate document in order to limit the volume of the national communication and provide an opportunity for Parties to more fully describe activities in this area;

(e) Whether the request for Parties to provide projections of carbon monoxide, nitrogen oxides, non-methane volatile organic compounds and sulphur oxides emissions should be deleted.

B. Other options for change

26. Parties may also wish to consider the following, less significant possible changes, also noted in footnotes to the Chairman's revised draft text:

(a) Whether a new title should be given to part II of the national communication (and, if so, whether it should be used throughout the guidelines, in preference to 'national communication');

(b) If a column should be added to table 1 to relate to 'objectives' (or activity affected by the policy) to be consistent with the elements in the description of policies and measures that Parties are to provide under paragraph 29;

(c) If the terms to describe the 'type' of policy under paragraph 29, sub-item (d), are sufficiently clear or whether alternative terms should be found;

(d) If reporting of policies and measures and projections should be along the lines of economic sectors (in line with the Convention) or along the lines of inventory categories;

(e) If there should be a request to supply information about 'best practices' in relation to policies and measures.

Annex

CHAIRMAN'S REVISED DRAFT TEXT OF THE GUIDELINES FOR THE PREPARATION OF NATIONAL COMMUNICATIONS BY PARTIES INCLUDED IN ANNEX I TO THE CONVENTION

Part II: Reporting guidelines on other issues

I. INTRODUCTION

A. Objectives

1. The objectives of these guidelines for preparing the national communication are:

(a) To assist Annex I Parties in meeting their commitments under Articles 4 and 12 of the Convention;

(b) To promote the provision of consistent, transparent, comparable, accurate and complete information in order to enable a thorough review and assessment of the implementation of the Convention by the Parties, and to monitor the progress they are making towards meeting the goals of the Convention; and

(c) To ensure that the Conference of the Parties (COP) has sufficient information, in accordance with Article 4.2(d), to carry out its responsibilities to review the implementation of the Convention and the adequacy of the commitments in Article 4.2(a) and (b).

[B. Definitions][1]

2. [In the context of these guidelines:

EU text follows:

Implemented policy or measure means a policy or measure in respect of which one or more of the following applies: (a) national legislation is in force; (b) one or more voluntary agreements have been established; (c) financial resources have been allocated; (d) human resources have been mobilized.

Transparency means that the text of the national communication is intelligible in terms of national actions and circumstances. Full *transparency* means that the quantitative and qualitative

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[1] The joint contact group decided to return to the question of which, if any, terms need definition after considering the entire text and taking into account the definitions already included in part I of the guidelines.

results could be reconstructed by a reader[2] on the basis of the information provided. In practical terms the amount of information that a Party would have to provide in order to achieve full transparency would be very great. However a Party would normally be expected to have access to the necessary information to provide full *transparency* if needed in some areas for review purposes.

Consistency means that data, sectoral definitions, calculation methods and technical terms which are used in the national communication, or which occur both in the national communication and national inventories, have the same values, definitions, or significance wherever they occur, and that any associated time-series are calculated on the same basis throughout.

Comparability means that methodologies agreed by the Parties have been used, for example to estimate greenhouse gas inventories, and that other internationally agreed definitions and methodologies have been employed.]

[C. Coverage]

3. [In accordance with Articles 4.1(j) and 12.1(a) and (b), a national communication shall describe the actions by Annex I Parties that significantly contribute to the implementation of their Convention obligations. In accordance with Article 12.3, Annex II Parties shall also report on finance and technology transfer measures to implement Article 4.3, 4.4 and 4.5.]

4. [In accordance with Articles 4 and 12, and consistent with part I of the reporting guidelines, a national communication shall describe anthropogenic emissions by sources and removals by sinks of all greenhouse gases (GHGs) not controlled by the Montreal Protocol. At a minimum, the national communication shall contain information on the following six greenhouse gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), and sulphur hexafluoride (SF_6). The national communication should provide information on any other greenhouse gases whose 100-year global warming potential (GWP) values have been identified by the Intergovernmental Panel on Climate Change (IPCC) and adopted by the COP. The national communication should also provide information on the following indirect greenhouse gases: carbon monoxide (CO), nitrogen oxides (NO_x) and non-methane volatile organic compounds (NMVOCs). Parties may also (are also encouraged to) provide information on sulphur oxides (SO_x) in their national communications.]

D. Structure

5. The information identified in these guidelines shall be communicated by a Party in a single document, 500 copies of which shall be submitted to the secretariat in one of the official languages of the United Nations. The length of a national communication may be decided by the

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[2] The term 'reader' is now used instead of 'Party', 'second Party' or 'third Party' throughout the guidelines, unless a Party to the Convention is being referred to .

submitting Party but every effort shall (should) be made to avoid over-lengthy national communications, in order to reduce the paper burden and to facilitate the consideration process. Parties shall also provide an electronic version of their national communication to the secretariat.[3]

6. Annex I Parties should also (are also encouraged to) submit to the secretariat, where relevant, a translation of their national communication into English.

7. Parties should (are encouraged to) provide additional relevant background information to the secretariat, preferably in English, or another official language of the United Nations. Additionally, Parties may provide references to additional relevant background information in an annex to the national communication.[4]

8. To facilitate transparency, comparability, and consistency of national communications, Parties should (shall) structure their national communication following the outline contained in the annex to these guidelines. To ensure completeness, no mandatory element shall be excluded. If mandatory elements cannot be reported for any reason, Parties should (shall) explain the omission or the reason for partial reporting in the section relating to that element.

9. Where statistical data are provided they should be accompanied by a definition of terms, unless they are obvious. These should (may) be included in footnotes or as an annex to the national communication.[5]

II. EXECUTIVE SUMMARY

10. A national communication shall include an executive summary that summarizes the information and data from the full document. The executive summary shall be of no more than 15 pages.

III. NATIONAL CIRCUMSTANCES

11. This section shall provide a description of a Party's general national circumstances, how national circumstances affect overall and/or relative GHG emissions and how national circumstances affect GHG emissions over time. It should allow the reader to understand the

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[3] Paragraph 5 has been amended to request that Parties provide 500 copies of their national communication, in line with existing practice, and also provide a full electronic version, not just the tables.

[4] The request to supply references is new in order to provide readers and not just the secretariat with information about additional publications.

[5] Paragraph 9 has moved from the "National circumstances" section because it is relevant throughout the national communication.

relevance of national circumstances to GHG emissions. Information shall be provided relevant to the three aspects described in sections A - C below.

A. General national circumstances

12. The Party shall provide information about its general national circumstances which may include:

(a) Size and geographic features of the country;

(b) Government structure.

B. National circumstances relevant to absolute and/or relative GHG emissions

13. The Party shall provide information which assists the reader in understanding the scale of absolute GHG emissions and/or relative GHG emissions. The Party should provide indicators such as emissions per unit of output or per capita and/or more disaggregated indicators to explain relative emissions and/or the relationship between national circumstances and emissions. The Party should provide information about how its national circumstances are relevant to factors affecting GHG emissions such as travel distances, heating requirements, renewable energy potential, land use and energy balance. National circumstances in this context may include:[6]

(a) Population profile: [For example, total population, growth rate, density and distribution, with trends since 1990];

(b) Geographic profile: [For example, area, latitude, land-use pattern, and ecosystems];

(c) Climate profile: [For example, temperature distributions, heating and cooling degree days, rainfall distributions, variability and extreme events];

(d) Economic profile: [For example, gross domestic product (GDP), GDP per capita (expressed in domestic currency and purchasing parities), GDP by sector, international trade patterns, with trends since 1990];

(e) Energy profile: [For example, energy resources profile, energy supply by fuel (million tonnes oil equivalent), energy prices, energy market structures (oil, gas, coal, hydro,

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[6] Parties may note that the projections section requests information about key activity data underlying emission trends over time such as the number of cars or deep landfills. Information in this section may be limited to that which illustrates the link between national circumstances and activities related to GHG emissions and/or directly to GHG emissions.

renewables, nuclear), energy consumption patterns, intensity by sector and trade in energy commodities, including electricity];

(f) Transport: [For example, features of transport infrastructure (road, rail, sea, air and public transport), and vehicle fleet size (cars and commercial)];

(g) Industry and waste: [For example, industry structure, trends and waste management practices];

(h) Building stock and urban form: [For example profile of residential buildings (type and occupancy), profile of commercial buildings, urban density and structure];

(i) Agriculture: [For example, structure, trends and waste management practices];

(j) Forestry: [For example, structure, trends];

(k) Other circumstances.

C. National circumstances relevant to changes in emissions over time

14. The Party shall provide information about changes in national circumstances over time (for example since 1990 or since the publication of the previous national communication) which will assist the reader in understanding changes in GHG emissions. The Party should present an analysis of the relationship between changes in energy consumption or GHG emissions and changes in underlying national circumstances over time. National circumstances in this context may include:

(a) GDP change;

(b) Annual temperature variation;

(c) Annual cross-border electricity trade;

(d) Change in industrial structure;

(e) Other.

D. Flexibility in accordance with Article 4.6 and 4.10

15. Parties requesting flexibility or consideration, in accordance with Article 4.6 and 4.10 of the Convention, shall state the type of special consideration they are seeking and provide an adequate explanation of their circumstances.

IV. GREENHOUSE GAS INVENTORY INFORMATION

A. Summary tables

16. Summary information from the national greenhouse gas inventory prepared according to part I of these guidelines shall be provided for the period from 1990 (or other base year) to the last but one year prior to the year of submission of the national communication (e.g. inventory information up to the year 1999 shall be provided in the third national communication to be submitted by 30 November 2001). The information provided in the national communication should be consistent with that provided in the annual inventory information submission of the year in which the national communication is submitted.

17. For the purpose of the national communication, complete inventory information need not be provided. However, at a minimum, Parties shall report the summary, including CO_2 equivalent and emissions trend tables given in the common reporting format contained in the above-mentioned guidelines. These tables may be provided as an annex to the national communication rather than in the main text.

B. Descriptive summary

18. In the main text of the national communication, Parties shall provide a descriptive summary and shall provide a diagram for each GHG reported in the summary tables, showing unadjusted emissions for the period 1990, or from another base year, approved by the COP, in accordance with Article 4.6 of the Convention, to the latest year available, in accordance with paragraph 16 above.

V. POLICIES AND MEASURES[7]

A. Selection of policies and measures for the national communication

19. Article 12.2 requires Annex I Parties to communicate information on policies and measures adopted to implement commitments under Article 4.2(a) and (b). These need not have the limitation and reduction of GHG emissions as a primary objective.

20. In reporting, Parties should give priority to policies, or combinations of policies, which have the most significant impact in limiting or reducing GHG emissions and may also indicate those which are innovative and/or effectively replicable by other Parties.[8] Parties may report implemented policies and those in the planning stage, but the distinction between the two must

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[7] The heading 'Mitigation plans' has been deleted and the sub-heading 'Policies and measures' retained.

[8] Parties may wish to note decision 8/CP.4, which relates to the exchange of information about 'best practices', and that the guidelines may be updated accordingly.

be clear throughout.[9] The national communication does not have to report every policy and measure which affects GHG emissions.

21. Policies reported on should (could) be those decided and/or implemented by governments at national and local level. Furthermore, policies reported may (could) also include those adopted in the context of regional or international efforts.

22. Parties shall report policies and measures which encourage activities leading to greater levels of GHG emissions than otherwise, identified in accordance with Article 4.2(e) of the Convention. These may (could) include subsidies to fossil fuel production and consumption or livestock rearing. In addition, policies relating to security of fuel supply may be of relevance in this context.

B. Structure of the policies and measures section of the national communication

23. Parties shall organize the reporting of policies and measures by sectors, subdivided by GHG (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6). Each sector shall (should) have its own textual description of the principal policies and measures, as set out in section D below, supplemented by summary table 1.[10] Parties may include separate text and a table describing cross-sectoral policies and measures.

24. In cases where a policy or measure has been maintained over time and is thoroughly described in the Party's previous national communication, reference should be made to this and only a brief description contained in the latest national communication, focusing on any alterations to the policy or effects achieved.

25. Some information such as the effect of policies and measures may be presented in aggregate for several complementary measures in a particular sector or affecting a particular gas.

C. Policy-making process

26. The national communication shall (should) describe the overall policy context including national targets for greenhouse gas mitigation, in addition to Convention commitments. Strategies for sustainable development or other relevant policy objectives may also be covered. Relevant inter-ministerial decision-making processes or bodies may (should) be noted.

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[9] A sentence is added to note that Parties may provide information about implemented policies and those in the planning stage, to be consistent with paragraph 29, sub-item (e).

[10] The term 'plus' has been replaced with 'supplemented by' to clarify that the table is secondary to the textual description of policies and measures.

27. The national communication shall (should) provide a description of the way in which progress with policies and measures to mitigate GHG emissions is monitored and evaluated over time. Institutional arrangements for monitoring of GHG mitigation policy shall (should) also be reported in this context.[11]

D. Policies and measures and their effects

28. Parties shall (should) provide information on how they believe their policies and measures are modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention.

29. The description of each policy and measure shall include information on each of the subject headings listed below. The description should (shall) be concise and should (could) include information on the detail suggested after each subject heading.

(a) *Name of the policy or measure.*[12]

(b) *Objectives of the policy or measure.* The description of the objectives should focus on the key purposes and benefits of the policies and measures. Objectives should be described in quantitative terms, to the extent possible.[13]

(c) *The greenhouse gas or gases affected.*

(d) *Type or types of policy or measure.* Use, to the extent possible, the following terms: economic, fiscal, voluntary, regulatory, information, education, research, other;[14]

(e) *Status of implementation.* It should be noted whether the policy or measure is in the planning stage or is under legislative consideration, or whether a legislative decision (or decision by another relevant body) has been taken. For policies having been decided by the relevant authority, the stage of implementation they are at should be noted. Information may include the funds already provided, future budget allocated and the planned time-frame for the implementation of the policy or measure;

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[11] This was formerly a sub-item under paragraph 30, but it does not need to be described for each policy.

[12] Sub-item (a) is new in order to be consistent with table 1.

[13] Parties may wish to note that table 1 does not have a column in which Parties may indicate the activity affected by the policy (i.e. the objective under paragraph 29, sub-item (b)) and may wish to amend it accordingly. For clarity, Parties may also wish to use the term 'activity' in the description of 'objectives'.

[14] Parties may wish to note that the terms 'economic' and 'fiscal' may be difficult to distinguish and that 'research' may be the result of a policy. Parties may wish to consider alternative terms. (Parties may wish to note that the terms 'tax', 'subsidy', 'voluntary agreement', 'regulation', 'public education' and 'specialist training' were used in the secretariat's questionnaire to Parties about the new gases.)

(f) *Level of government and private sector involvement.* This should cover whether a central or local government decision is or was required to initiate the policy, whether funds are provided from state or local budgets and who is the implementing authority. It should (shall) also cover whether the policy is targeted at the organization, firm or household level etc. and, where possible, note the scale of private sector involvement in terms of funding etc.

30. The following information [may] [shall] [should] be included in the description of each policy and measure reported: ***(Parties may note that if the word 'shall' is adopted, then paragraph 30 can be deleted and these points can continue as sub-items of paragraph 29.)***

(a) *A quantitative estimate of the impacts of individual policies and measures or collections of policies and measures.* The estimate may be of historic impacts and/or of future impacts. This may be in terms of the underlying activity or emissions affected, compared to the likely level of activity or emissions for the relevant sector in the absence of such policies. This information should be presented as an estimate for a particular year such as 1995, 2000 and 2005, not for a period of years. Parties may also (are also encouraged to) provide a brief description of how such savings are estimated. This information may be provided for both implemented policies and measures and policies and measures under consideration, but the distinction between the two should be clear.[15]

(b) *Information about the costs of policies and measures.* Such information should be accompanied by a brief definition of the term 'cost' in this context.

(c) *Information about non-GHG mitigation benefits of policies and measures.* Such benefits may (could) include, for example, reduced emissions of other pollutants or health benefits.

(d) *How the policy or measure interacts with other policies and measures at the national level.* This may include a description of how policies complement each other in order to enhance overall greenhouse gas mitigation.

E. Policies and measures no longer in place

31. When policies listed in previous national communications are no longer in place, Parties may explain why this is so.[16]

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[15] Parties may wish to note that, according to paragraph 23, table 1 shall be completed, but that according to footnote f of table 1, information on the quantified estimate of impacts shall (should) only be provided 'to the extent possible'.

[16] The sentence was part of paragraph 24. It has not been changed, but is shown as a separate paragraph because it is a distinct point.

Table 1.[17] Summary of policies and measures by sector [a]

Name of policy/ measure[b]	GHG affected	Type of instrument[c]	Status of implementation[d]	Level of government and private sector involvement[e,18]	Estimate of mitigation impact, by gas[f] (for a particular year, not cumulative, in CO_2 equivalents)				
					1995	2000	2005	2010	2020

[a] Separate tables shall (should) be completed for each sector. To the extent appropriate, the following sectors should be considered: energy, transport, industry, agriculture, forestry and waste management. A table may (could) also be completed for any cross-sectoral policies and measures.[19]

[b] Parties should use an asterisk (*) to indicate that a measure is included in the 'with measures' projection.

[c] To the extent possible the following terms should be used: economic, fiscal, voluntary, regulatory, information, education, research and other.

[d] To the extent possible the following descriptive terms should be used: under consideration, decided (year), implemented (year), funding allocated (years, amount), funding planned (years, amount), expected end date (year).

[e] For example, central government or federal authority, private sector, county, municipality.

[f] This information shall (should) be included to the extent possible, and where appropriate, taking into account the appropriate level of aggregation.

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[17] Parties may wish to note that this table excludes sub-item (b) of paragraph 29, so it does not cover the activity (i.e. the objective) affected by the policy or measure described. They may wish to amend the table accordingly.

[18] The heading of this column, formerly 'Implementing entity or entities', has been changed in order to make it consistent with paragraph 29, sub-item (f). Parties may, however, prefer to retain the original heading and change sub-item (f) in order to achieve consistency.

[19] In footnote a, the sectors for which Parties are requested to report policies and measures are now in line with the six sectors mentioned in the Convention.

VI. PROJECTIONS AND THE TOTAL EFFECT OF POLICIES AND MEASURES

A. Purpose

32. The primary objective of the projections section of the national communication is to give an indication of future trends in GHG emissions and removals, given current national circumstances and implemented policies and measures, and to give an indication of the path of emissions without such policies and measures.

B. Projections

33. At a minimum, Parties shall report a 'with measures' projection, in accordance with paragraph 34 and may report 'without measures' and 'with additional measures' projections.

34. A '**with measures**' projection shall encompass currently implemented policies and those not yet implemented by the Party at the time of preparation of the national communication, but fully committed to through, for example, legislation. If provided, a '**with additional measures**' projection shall also encompass policies and measures not yet implemented, but under consideration and with a realistic chance of being implemented. If provided, a '**without measures**' projection shall include all policies and measures implemented prior to the year chosen as the starting point for this projection.

35. Parties may report sensitivity analysis for any of the projections, but should aim to limit the number of scenarios presented.

C. Presentation of projections relative to actual data

36. Emission projections shall be presented relative to actual inventory data for the preceding years.

37. For the 'with measures' and 'with additional measures' projections, the starting point should generally be the latest year for which inventory data are available in the national communication. For the 'without measures' projection, the starting point may be 1995 or Parties may provide a 'without measures' projection starting from an earlier year such as 1990 or another base year, as appropriate.

38. Parties may use temperature-adjusted energy data or other 'normalized' data in making their projections. However, Parties should present their projections relative to unadjusted inventory data for the preceding years. In addition, Parties may present their projections relative to adjusted inventory data. In this case, Parties shall explain the nature of the adjustments.

D. Coverage and presentation

39. Projections shall be made on a gas-by-gas basis for the following greenhouse gases: CO_2, CH_4, N_2O, PFCs, HFCs and SF_6 (treating PFCs and HFCs collectively in each case). [Parties may also provide projections of the indirect greenhouse gases CO, NO_x and NMVOCs, as well as SO_x.] In addition, projections shall be provided in an aggregated format, using GWP values agreed upon by the Conference of the Parties.

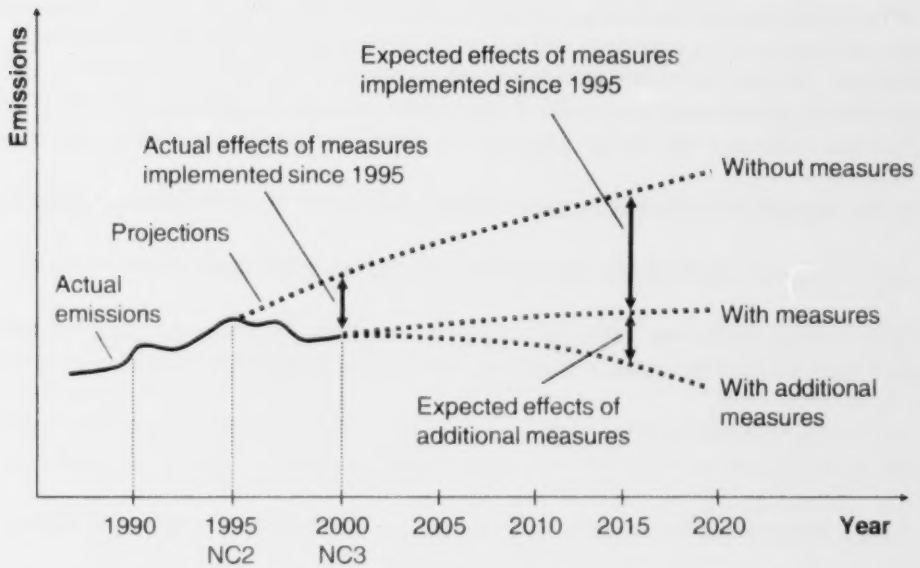
40. Projections should (shall) be further subdivided on a sectoral basis, to the extent possible using the same sectoral categories used in the policies and measures section. This subdivision should (shall) include a separate category for land-use, land-use change and forestry.

41. To ensure consistency with inventory reporting, emissions from fuel sold to ships and aircraft engaged in international transport should (shall) be reported separately and not included in the totals.

42. In view of the objective of the Convention and the intent to modify longer-term trends in emissions and removals, Parties should (shall) include projections on a quantitative basis for the years 2005, 2010, 2015 and 2020. Projections should (shall) be presented in a tabular format by gas and sector for each of these years, together with actual data for the period 1990 to 2000 or the latest year available. For Parties using a different base year for their inventories, in accordance with Article 4.6. and 4.10 of the Convention, actual data for that year shall be given.

43. At a minimum, a diagram for each gas shall be presented showing unadjusted inventory data and a 'with measures' projection, for the period 1990 (or another base year, as appropriate) to 2020. Additional diagrams may also be presented. Figure 1 illustrates the presentation of a hypothetical Party's projection for a single gas. It shows unadjusted inventory data for the period 1990 to 2000. It shows 'with measures' and 'with additional measures' scenarios starting from 2000, and a 'without measures' scenario starting from 1995.

Figure 1: Hypothetical Party's projection for emissions of one gas



E. Assessment of effects of policies and measures

44. The estimated effects of individual policies shall be described in the policies and measures section of the national communication. In the projections section of the national communication, Parties shall present the estimated total effect of implemented policies and the total expected effect of implemented policies and may also present the total expected effect of additional policies and measures.

45. Parties shall provide an estimate of the total effect of their policies and measures, in accordance with the 'with measures' definition, compared to a situation without such measures. This effect shall be presented in terms of GHG emissions saved, by gas (on a CO_2 equivalent basis), in particular years such as 1995, 2000, 2005, 2010, 2015 and 2020 (not cumulative savings). This information may be presented in tabular format.

46. Parties may calculate the total effect of their measures by taking the difference between a 'with measures' and 'without measures' projection. Alternatively, Parties may use another approach to individually assess the effect of each significant policy and measure, aggregating the individual effects to arrive at a total. In either case, when reporting, it should be clear from what year onward it is assumed that policies are implemented or not implemented in making the calculations.

F. Methodology

47. When projecting greenhouse gas emissions and removals, and estimating the total effects of policies and measures on emissions and removals, Parties may use any models and/or approaches they choose. Sufficient information should be reported in the national communication to allow a reader to obtain a basic understanding of such models and/or approaches and additional information shall be available for purposes of review.

48. In the interests of transparency, for each model or approach used, Parties should (shall):

(a) Explain which gases and/or sectors the model or approaches were used for;

(b) Describe the type of model or approach used and its characteristics (for example, top-down model, bottom-up model, accounting model, expert judgement);

(c) Describe the original purpose the model or approach was designed for and, if applicable, how it has been modified for climate change purposes;

(d) Summarize the strengths and weaknesses of the model or approach used;

(e) Explain how the model or approach used accounts for any overlap or synergies that may exist between different policies and measures.

49. To ensure transparency, Parties should (shall) report information about key underlying assumptions and values of key variables such as GDP growth, population growth, tax levels and international fuel prices, using table 2. This information should be limited to that which is not covered under section G, i.e. it should not include sector-specific data.

Table 2. Summary of key variables and assumptions in the projections analysis

	Historic			Projected[20]				
	1985	1990	1995	2000	2005	2010	2015	2020
Variable 1 (e.g. GDP growth)								
Variable 2 (e.g. world oil prices (US$/barrel)								

[20] Parties may indicate with an asterisk where the data is not an output but has been assumed as an input to the emission projections.

50. Parties should report the main differences in the assumptions, methods employed, and results between projections in the current national communication and those in earlier national communications.

51. The level of uncertainty associated with the projections and, where relevant, uncertainty associated with underlying assumptions should (shall) be discussed qualitatively and, where possible, quantitatively.

52. Parties are encouraged to have their projections peer-reviewed by independent experts.

G. Summary of key data relevant to projections

53. Parties shall present information about the expected profiles of various sectors, using key data, *inter alia*, as suggested below, giving information for the years 1990 to 2020, at five-year intervals, where available. The objective is to provide the reader with an understanding of the key factors and activities underlying emission trends over time. This information may be presented in a tabular format.[21]

Actual and future energy sector profile

(a) Primary energy production by fuel type;
(b) Energy demand by sector;
(c) Energy imports/exports.

Actual and future industrial sector profile

(a) Absolute output by industry sector (in US dollars);
(b) Output as a share of total GDP, by sector (in US dollars).

Actual and future transport sector profile

(a) Cars per thousand of population;
(b) Passenger-kilometres by type i.e. road, rail, air, sea;
(c) Freight-kilometres and tonne-kilometres.

Actual and future agricultural sector profile

(a) Arable land area;
(b) Livestock numbers, by animal type;

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[21] Parties may indicate with an asterisk where the data is not an output but has been assumed as an input to the emission projections.

(c) Rice cultivation (area cultivated in hectares);
(d) Fertilizer consumption.

Actual and future waste sector profile

(a) Number of deep landfills;
(b) Number of shallow landfills;
(c) Number of landfills with CH_4 recovery and flaring;
(d) Number of landfills with energy production;
(e) Landfill waste disposal (tonnes).

Actual and future forestry sector profile

(a) Area of afforestation and reforestation (thousands of hectares);
(b) Area of deforestation.

Actual and future residential and commercial buildings sector profile[22]

(a) Number of households with coal/ gas/ wood/ geothermal and electric heating;
(b) Average heat loss per m^2 of floor area.

VII. VULNERABILITY ASSESSMENT, CLIMATE CHANGE IMPACTS AND ADAPTATION MEASURES

54. A national communication shall include information on the expected impacts of climate change and an outline of the actions taken to implement Article 4.1(b) and (e) with regard to adaptation. Parties are encouraged to use the IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations and the United Nations Environment Programme (UNEP) Handbook on Methods for Climate Change Impacts Assessment and Adaptation Strategies.[23] Parties may refer, *inter alia*, to integrated plans for coastal zone management, water resources and agriculture. Parties may also report on specific results of scientific research in the field of vulnerability assessment and adaptation.

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[22] If Parties wish to maintain only the six economic sectors listed in the Convention, then the 'buildings sector' could be categorized under the 'energy sector' profile.

[23] This reference has been added to the UNEP Handbook in accordance with the conclusions of the SBSTA at its tenth session (FCCC/1999/SBSTA/6, paragraph 55).

VIII. FINANCIAL RESOURCES AND TRANSFER OF TECHNOLOGY

55. In accordance with Article 12.3, Annex II Parties shall provide detailed information on the activities undertaken to give effect to their commitments under Article 4.3, 4.4, and 4.5, as follows.

56. Parties shall indicate what "new and additional" financial resources have been provided, to meet the agreed full costs incurred by developing country Parties, in complying with their obligations under Article 12.1. Parties shall clarify how they have determined such resources as being "new and additional" in their national communications.

57. Parties shall provide information on the provision of financial resources to meet the agreed full incremental costs incurred by developing countries in their implementation of measures covered under Article 4.1 of the Convention. When communicating this information, Parties shall complete tables 4 and 5 below.

58. Parties shall provide detailed information on the assistance provided for the purpose of assisting developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation to those adverse effects, in textual format and with reference to table 5 below.

59. Parties shall, when reporting activities related to the promotion, facilitation and financing of the transfer of, or access to, environmentally sound technologies, clearly distinguish between activities undertaken by the public sector and those undertaken by the private sector. As the ability of Parties to collect information on private sector activities is limited, Parties may indicate, where feasible, in what way activities by the private sector help meet the commitments of Parties under Article 4.3, 4.4 and 4.5 of the Convention.

60. Parties shall report on some significant success stories related to technology transfer, using table 6 below. Parties shall also report their activities for financing access by developing countries to "hard" or "soft" environmentally sound technologies.[24]

61. Parties are encouraged to report, in textual format, information on steps taken by governments to promote, facilitate and finance transfer of technology, and to support development and enhancement of endogenous capacities and technologies of developing countries.

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[24] The term "transfer of technology", as used here, encompasses practices and processes such as "soft" technologies, for example, capacity-building, information networks, training and research, as well as "hard" technologies, for example, equipment to control, reduce or prevent anthropogenic emissions of greenhouse gases in the energy, transport, forestry, agriculture, and industry sectors, to enhance removals by sinks, and to facilitate adaptation.

Table 3. Financial contributions to the Global Environment Facility (GEF) and other multilateral institutions and programmes[25]

Institution or programme	Contributions[26] (millions of US dollars)		
Global Environment Facility			
	1997	1998	1999 *
Multilateral institutions: 1. World Bank 2. International Finance Corporation 3. African Development Bank 4. Asian Development Bank 5. European Bank for Reconstruction and Development 6. Inter-American Development Bank 7. United Nations Development Programme - specific programmes 8. United Nations Environment Programme - specific programmes 9. UNFCCC - Supplementary Fund 10. Other			
Multilateral scientific, technological and training programmes: 1. 2. 3. 4. 5.			

* Parties can report on the year 2000 if data are available.

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[25] In filling out this table, Parties may wish to refer to contributions related to the implementation of the Convention.

[26] Parties may indicate their overall contribution to the GEF and/or other multilateral institutions over a multi-year period.

Table 4. Bilateral and regional financial contributions related to the implementation of the Convention, 1997 [27]
(millions of US dollars)

	Mitigation						Adaptation		
Recipient country/region	Energy	Transport	Forestry	Agriculture	Waste management	Industry	Capacity-building	Coastal zone management	Other vulnerability assessments
1									
2.									
3.									
4.									
5									
6									
7									
8.									
9									
10									
11									
12.									
13.									
14									
15. All other									

Similar tables shall be completed for 1998, 1999 and, if the information is available, for 2000.

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[27] Parties may also wish to indicate separately their contribution to developing country Parties to enable the latter to comply with their obligations under Article 12.1.

Table 5. Description of selected projects or programmes that promoted practicable steps to facilitate and/or finance the transfer of, or access to, environmentally sound technologies

Project / programme title:			
Purpose:			
Recipient country	**Sector**	**Total funding**	**Years in operation**
Description:			
Indicate factors which led to project's success:			
Technology transferred:			
Impact on greenhouse gas emissions/sinks (optional):			

IX. RESEARCH AND SYSTEMATIC OBSERVATION[28]

62. Pursuant to Articles 4.1(g), 5 and 12.1(b), Annex I Parties shall communicate information on their actions relating to research and systematic observation.[29]

63. In preparing their communications on systematic observation and related data and monitoring systems, Parties may be guided by the draft guidance for reporting on global climate observing systems from the Global Climate Observing System secretariat.[30]

64. The national communication shall (should) address both domestic and international activities (for example, the World Climate Programme, the International Geosphere-Biosphere Programme, GCOS, and the IPCC). They shall also reflect actions taken to support related capacity-building in developing countries.

65. The national communication should (shall) be limited to reporting on actions undertaken and the opportunities for and barriers to international exchange of data and information, rather than the detailed results of such efforts. For example, the results of research studies or model runs or data analysis should (shall) not be included in this section.

A. General policy and funding of research and systematic observation

66. Parties should provide information about general policy and funding of research and systematic observation.[31]

67. Parties should identify the opportunities for and barriers to free and open international exchange of data and information.

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[28] The European Union and United States text contained in Working Paper No. 4 has been retained in this section, with some changes in paragraph order.

[29] Parties may wish to consider providing a separate report on research and systematic observation in order to limit the volume of the national communication and to have the opportunity to describe more fully activities on this subject.

[30] A reference to the GCOS guidelines is made in accordance with the conclusions of SBSTA at its tenth session (FCCC/SBSTA/1999/6, paragraph 75).

[31] This sentence is new, to allow Parties to provide a general context for the section.

B. Research

68. Parties shall provide, *inter alia*, information on:

(a) Climate process and climate system studies;

(b) Modelling and prediction, including general circulation models;

(c) Research on the impacts of climate change;

(d) Socio-economic analysis, including analysis of both the impacts of climate change and response options;

(e) Technology research and development.

C. Systematic observation and monitoring systems

69. Parties shall provide information on the current status of national plans and support in the following areas:

(a) Atmospheric observing systems, including those measuring atmospheric constituents;

(b) Ocean observing systems;

(c) Terrestrial observing systems, including those dealing with land-surface properties, ice masses and freshwater resources;

(d) Support for developing countries to establish and maintain observing systems and related data and monitoring systems.

X. EDUCATION, TRAINING AND PUBLIC AWARENESS

70. In accordance with Articles 4.1(i), 6 and 12.1(b), Annex I Parties shall communicate information on their actions relating to education, training and public awareness. In this section, Parties should (shall) report, *inter alia*, on public information and education materials, resource or information centres, training programmes, and participation in international activities. Parties may (are encouraged to) report the extent of public participation in the preparation or domestic review of the national communication.

71. The national communication may present information such as:[32]

(a) General policy toward education, training and public awareness;
(b) Primary, secondary and higher education;
(c) Public information campaigns;
(d) Training programmes;
(e) Resource or information centres;
(f) Involvement of the public and non-governmental organizations;
(g) Participation in international activities.

XI. SYSTEMATIC UPDATING OF THE GUIDELINES

72. Any future decisions taken by the Conference of the Parties regarding the reporting of information under the Convention shall (should) be applied *mutatis mutandis* to this part i.e. part II of the guidelines.

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[32] Paragraph 71 has been added to provide some structure to the education, training and public awareness section of the national communication.

Annex to the Chairman's revised draft text of the guidelines for the preparation of national communications by Parties included in Annex I to the Convention

STRUCTURE OF THE NATIONAL COMMUNICATION

I. EXECUTIVE SUMMARY

II. NATIONAL CIRCUMSTANCES

A. General national circumstances

B. National circumstances relevant to absolute and/or relative GHG emissions

C. National circumstances relevant to changes in GHG emissions over time

D. Flexibility in accordance with Article 4.6 and 4.10

III. GREENHOUSE GAS INVENTORY INFORMATION

A. Summary tables (or as an annex to the national communication)

B. Descriptive summary

IV. POLICIES AND MEASURES

A. Policy-making process

B. Policies and measures and their effects

Table 1

C. Policies and measures no longer in place

V. PROJECTIONS AND THE EFFECTS OF POLICIES AND MEASURES

A. Projections

Diagrams

B. Assessment of effects of policies and measures

C. Methodology

Table 2

D. Summary of key data relevant to projections

VI. VULNERABILITY ASSESSMENT, CLIMATE CHANGE IMPACTS AND ADAPTATION MEASURES

A. Expected impacts of climate change

B. Adaptation measures

VII. FINANCIAL RESOURCES AND TRANSFER OF TECHNOLOGY

A. Provision of 'new and additional' resources

B. Provision of financial resources

C. Assistance to developing country Parties that are particularly vulnerable to climate change

D. Activities related to transfer of technology

Tables

VIII. RESEARCH AND SYSTEMATIC OBSERVATION

A. General policy on research and systematic observation

B. Research

C. Systematic observation

IX. EDUCATION, TRAINING AND PUBLIC AWARENESS

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